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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/674,190

09/29/2003

Ara Kulidjian

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VEDDER PRICE KAUFMAN & KAMMHOLZ
222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER

CHERRY, STEPHEN J

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,190

Applicant(s)

ARA KUILIDJIAN

Examiner

Stephen J. Cherry

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-16, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7-16, and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,740,352 to Philipp et al.

Claim 1 recites, as disclosed by Philipp:

1. A method for automated testing of display signals from video graphics circuitry comprising:
capturing at least one display signal ('352, col. 5, line 15);
converting the display signal into at least one data acquisition signal ('352, fig. 1, output of 200); and
providing the at least one data acquisition signal to a test system that tests the display signal ('352, col. 8, line 7).

Claim 2 recites, as disclosed by Philipp:

2. The method of claim 1 further comprising:
taking measurements of the at least one data acquisition signal ('352, col. 9, line 20).

Claim 3 recites, as disclosed by Philipp:

3. The method of claim 2 wherein the data acquisition signals include at least one of the following: a vertical synchronization signal, a horizontal synchronization signal ('352, col. 13, line 29), a data enable signal, a pixel clock signal and a voltage control signal.

Claim 4 recites, as disclosed by Philipp:

4. The method of claim 1 wherein the display signals are also transmitted to the display device ('352, col. 5, line 1, and fig. 1).

Claim 7 recites, as disclosed by Philipp:

7. The method of claim 4 wherein the display signals are transmitted to the display device using analog RGB signaling ('352, col. 5, line 56).

Claim 8 recites, as disclosed by Philipp:

8. The method of claim 1, wherein the display signals are generated by a computer under test and prior to capturing the display signals, the method further comprising:

providing at least one of the following: a keyboard command and a power change command, to the computer under test from a test computer to generate the display signals ('352, col. 10, line 16).

Claim 9 recites, as disclosed by Philipp:

9. A method for automated testing of display information for a display device comprising: providing a test command to a computer under test such that the computer under test generates display signals to be transmitted to the display device ('352, col. 10, line 16); capturing the

display signals to be received by the display device ('352, col. 5, line 15); converting the display signals into at least one data acquisition signal ('352, output of 200); and providing the at least one data acquisition signal to the test system ('352, col. 8, line 7).

Claim 10 recites, as disclosed by Philipp:

10. The method of claim 9 wherein prior to the step of providing the test command to the computer, the method includes: providing an original command to a command converter; and generating the test command ('352, col. 10, line 23).

Claim 11 recites, as disclosed by Philipp:

11. The method of claim 9 further comprising: taking measurements of the at least one data acquisition signal with a test signal ('352, fig. 3, 381); and generating a display accuracy report ('352, fig. 3, 411).

Claim 12 recites, as disclosed by Philipp:

12. The method of claim 11 wherein the step of taking measurements of the at least one data acquisition signal includes: measuring at least one of the following: a horizontal synchronization signal, a vertical synchronization signal, a data enable signal, a pixel clock signal, a voltage command signal and a backlight signal ('352, col. 13, line 29).

Claim 13 recites, as disclosed by Philipp:

13. The method of claim 9 wherein the display signal is at least one of the following: a low voltage differential signal, a transition minimized differential signal and an analog RGB signal ('352, col. 15, line 56).

Claim 14 recites, as disclosed by Philipp:

14. An apparatus for automated testing of display signals from video graphics circuitry comprising: a printed circuit board capable of receiving display signals ('352, figs. 6a-6f, board inherent to circuit); a data acquisition signal generated by the printed circuit board from the display signals ('352, output of 200); and a test computer that receives the data acquisition signal from the printed circuit board and tests the display signals ('352, 300).

Claim 15 recites, as disclosed by Philipp:

15. The apparatus of claim 14 further comprising: a command generated by the test computer ('352, col. 10, line 16); and a command converter coupled to the test computer and the computer under test such that the command converter receives the command from the test computer, generates a test command and provides the test command to the computer under test ('352, fig. 1, 130).

Claim 16 recites, as disclosed by Philipp:

16. The apparatus of claim 15 wherein the command converter generates at least one of the following: a keystroke command and a power change command ('352, col. 10, line 16).

Claim 19 recites, as disclosed by Philipp:

19. An apparatus for automated testing of display signals from video graphics circuitry comprising: a printed circuit board capable of receiving display signals ('352, figs. 6a-6f, board inherent to circuit); a data acquisition signal generated by the printed circuit board from the display signal ('352, output of 200); and a test computer operably coupled to the printed circuit board, the test computer including a processor operably coupled to a memory storing executable instructions such that the processor, in response to the executable instructions: generates a command to be provided to a computer under test; receiving the data acquisition signal ('352, 300); and testing the data acquisition signal ('352, fig. 3, 381).

Claim 20 recites, as disclosed by Philipp:

20. The apparatus of claim 19 further comprising: a command converter operably coupled to the test computer, such that the command converter receives the command from the test computer and generates a test command to be provided to the computer under test ('352, fig. 1, 130).

Allowable Subject Matter

Claims 5-6 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 5 recites, "wherein the display signals are transmitted to the display device using low voltage differential signaling". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 6 recites, "wherein the display signals are transmitted to the display device using transition minimized differential signaling". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 17 recites, "wherein the printed circuit board includes: at least one line buffer; and a low voltage differential signaling receiver coupled to the at least one buffer such that low voltage different signaling receiver generates the data acquisition signals that include at least one of the following: a vertical synchronization signal, a horizontal synchronization, a data enable signal and a pixel clock signal". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 18 recites, "wherein the printed circuit board includes: a transition minimized differential signaling bus; a transition minimized differential signaling receiver coupled to the transition minimized differential signaling bus; a transition minimized differential signaling transmitter coupled to the transition minimized differential signaling receiver across a signal bus; and a plurality of buffers coupled to the signal bus for receiving at least one of the following signals being provided to the transition minimized differential signaling transmitter: a vertical synchronization signal, a horizontal

Art Unit: 2863

synchronization, a data enable signal and a pixel clock signal". This feature in combination with the remaining claimed structure avoids the prior art of record.

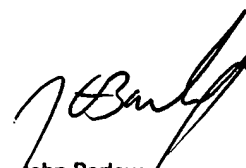
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (571) 272-2272. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SJC


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